

Date: Tuesday, 3/11/2008 11:26:54 AM
 User: Kim Johnston

Process Sheet

15

Customer : CU-DAR001 Dart Helicopters Services	Drawing Name : LONG STEP ASSEMBLY HIGH SKID RH
Job Number : 37796	
Estimate Number : 10274	
P.O. Number :	Part Number : D350591312
This Issue : 3/11/2008 S.O. No. :	Drawing Number : D3272 REV B
Prsht Rev. : NC	Project Number : N/A
First Issue : / / Type : LARGE FAB ASSY	Drawing Revision : B
Previous Run : 37617	Material :
Written By : <u> </u>	Due Date : 4/10/2008 Qty: 10 Um: Each
Checked & Approved By : <u> </u>	
Comment : Est Rev:A 04.03.22 New issue KJ/RF	
Est Rev:B 07-06-09 Added D3572-1 JLM	

Additional Product

Job Number:



Seq. #:	Machine Or Operation:	Description :
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1.0	DC	DOCUMENT CONTROL
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Comment: DOCUMENT CONTROL

Photocopy bluefile and type labels as per PPP D350-591-312 CHG001 002 per ECN1164 08.4.15

2.0	D32721	STEP
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Comment: Qty.: 1.0000 Each(s)/Unit Total : 10.0000 Each(s)

STEP

BATCH: 3 37778

08.04.23 10

3.0	D30671	End Plate
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Comment: Qty.: 1.0000 Each(s)/Unit Total : 10.0000 Each(s)

Pick:

Qty Part Number	Description Batch
1 D3067-1	End Plate <u>337952</u>
	<u>337571</u>

08.04.23 10

4.0	D32191	Support
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Comment: Qty.: 2.0000 Each(s)/Unit Total : 20.0000 Each(s)

Pick:

Qty Part Number	Description Batch
2 D3219-1	Support <u>337932=19</u>
	<u>338250=1</u>

08.04.23 10

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

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Job Number: 37796

Part Number: D350591312

Job Number:



Seq. #:

Machine Or Operation:

Description :

5.0

LARGE FAB 1

LARGE FABRICATION RESOURCE 1



Comment: LARGE FABRICATION RESOURCE 1

1-Bevel end for welding FWD ONLY

2-Weld Support using Jig DT8719, weld Fwd End Plate as per QSI 004 & Dwg D3272

A/R Aluminum Rod *M106834*
M106762

3-Grind End Plate flush

*PH 08-04-23**PH 08-04-23**SAD 02/04/25*

10

10

6.0

QC9

VISUAL WELDING INSPECTION



Comment: VISUAL WELDING INSPECTION

PH 08-04-23 (10)

7.0

QC5

INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

5 08/04/28 X 10K

8.0

HAND FINISHING1

HAND FINISHING RESOURCE #1



Comment: HAND FINISHING RESOURCE #1

Chemical Conversion Coat as per QSI 005 4.1

*FL/22**08/04/29*

(10)

9.0

QC3

INSPECT POWDER COAT/CHEMICAL CONVERSION



Comment: INSPECT POWDER COAT/CHEMICAL CONVERSION

*M-1**08/04/30*

(10X)

10.0

D3065041

Step Leg Assembly



Comment: Qty.: 1.0000 Each(s)/Unit Total : 10.0000 Each(s)

Pick:

Qty Part Number

Description

Batch

1 D3065-041

Step Leg Assy

*B35624 (2)**B35625 (8)**SAD 08/04/30*

10

11.0

D30661

Spacer



Comment: Qty.: 2.0000 Each(s)/Unit Total : 20.0000 Each(s)

Pick:

Qty Part Number

Description

Batch

2 D3066-1

Spacer

*B38150**SAD 02/04/30*

10

Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

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Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: LONG STEP ASSEMBLY HIGH SKID RH

Job Number: 37796

Part Number: D350591312

Job Number:



Seq. #:

Machine Or Operation:

Description :

12.0

MS20600AD4W4

Rivets



Comment: Qty.: 16.0000 Each(s)/Unit Total : 160.0000 Each(s)

Pick:

✓ Qty Part Number Description Batch
16 MS20600AD4W4 Rivet 107756

SAD 08/04/30 (10)

13.0

LARGE FAB 1

LARGE FABRICATION RESOURCE 1



Comment: LARGE FABRICATION RESOURCE 1

Assemble Leg Assembly as per Dwg D3272.

SAD 08/04/30 (10)

14.0

QC5

INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

08/04/30 (10) (RH)

15.0

D30671

End Plate



Comment: Qty.: 1.0000 Each(s)/Unit Total : 10.0000 Each(s)

Pick:

Qty Part Number Description Batch
1 D3067-1 End Plate 337571

08.05.01 10

16.0

LARGE FAB 1

LARGE FABRICATION RESOURCE 1



Comment: LARGE FABRICATION RESOURCE 1

1-Bevel Aft end for welding

2-Inspect for foreign object as per QSI 024

3-Weld Aft End Plate as per QSI 004 & Dwg D3272

A/R Aluminum Rod 1126834

4-Grind End Plate flush

5-Install last rivet.

08.05.01 10

08.05.01 10

08.05.01 10

SAD 08/05/07 (18)

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

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Job Number: 37796

Part Number: D350591312

Job Number:



Seq. #:

Machine Or Operation:

Description :

17.0

QC9

VISUAL WELDING INSPECTION



Comment: VISUAL WELDING INSPECTION

D 08-05-02 (10)

18.0

QC5

INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

S 08/05/05 (10) (10)

19.0

HAND FINISHING1

HAND FINISHING RESOURCE #1



Comment: HAND FINISHING RESOURCE #1

Touch up Alodine

M-1 08/05/05

20.0

POWDER COATING

POWDER COATING



M 107550



Comment: POWDER COATING

Powder Coat White Gloss (Ref: 4.3.5.1) as per QSI 005 4.3

JL 08-05-05

21.0

HAND FINISHING1

HAND FINISHING RESOURCE #1



M 107380



Comment: HAND FINISHING RESOURCE #1

Wing Walk as per Dwg D3272 and QSI 005 4.4

FL/RB

08/05/06

22.0

QC3

INSPECT POWDER COAT/CHEMICAL CONVERSION



Comment: Inspect Powder Coat and Wing Walk

S 08/05/06 (10) (10)

23.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Pick Packing Kit

24.0

D22303

Mounting Lug



Comment: Qty.: 4.0000 Each(s)/Unit Total : 40.0000 Each(s)

Pick: Packing Kit

QtyPart Number Description Batch

4 D2230-3 Mounting Lug

37746

8/5/5

50

1337796
D350591312

05/05/2008

S.188

#1

#2

#3

#4

3.48

319.

30mins

(10)

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

QA: N/C Closed: _____ Date: _____

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Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: LONG STEP ASSEMBLY HIGH SKID RH

Job Number: 37796

Part Number: D350591312

Job Number:



Seq. #:

Machine Or Operation:

Description :

25.0

D2618

Bushing



Comment: Qty.: 2.0000 Each(s)/Unit Total : 20.0000 Each(s)

Pick: Packing Kit

Qty Part Number Description Batch

2 D2618

Bushing

35628

SP

26.0

D2856400

Abrasion Strip



Comment: Qty.: 0.6000 f(s)/Unit Total : 6.0000 f(s)

Pick: Packing Kit

Qty Part Number Description Batch

2 D2856-400-720 Abrasion Strip

36161

38878 (X)

SP

27.0

D32351

Mounting Lug



Comment: Qty.: 2.0000 Each(s)/Unit Total : 20.0000 Each(s)

Pick: Packing Kit

Qty Part Number Description Batch

2 D3235-1

Mounting Lug

33249 (9X)

37933 (11X)

SP

28.0

D3278041

Support Assembly



Comment: Qty.: 1.0000 Each(s)/Unit Total : 10.0000 Each(s)

Pick: Packing Kit

Qty Part Number Description Batch

1 D3278-041

Support Assembly

37780

SP

29.0

AN335A

Bolt



Comment: Qty.: 2.0000 Each(s)/Unit Total : 20.0000 Each(s)

Pick: Packing Kit

Qty Part Number Description Batch

2 AN3-35A

Bolt

106993

SP

30.0

AN413A

Bolt



Comment: Qty.: 8.0000 Each(s)/Unit Total : 80.0000 Each(s)

Pick: Packing Kit

Qty Part Number Description Batch

8 AN4-13A

Bolt

107534

8/5/5

SP

W/O:		WORK ORDER CHANGES						
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector	
8/5/16	16	Qty @ 7.20 x 2 = 14.40 1 foot 2 inches total 12 feet	SP					

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
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Drawing Name: LONG STEP ASSEMBLY HIGH SKID RH

Job Number: 37796

Part Number: D350591312

Job Number:



Seq. #:

Machine Or Operation:

Description :

31.0

AN536A

Bolt



Comment: Qty.: 2.0000 Each(s)/Unit Total : 20.0000 Each(s)

Pick: Packing Kit

Qty Part Number Description Batch

2 AN5-36A

Bolt

107013

18x

107715

9x

50

32.0

AN960JD10

Washer



Comment: Qty.: 4.0000 Each(s)/Unit Total : 40.0000 Each(s)

Pick: Packing Kit

Qty Part Number Description Batch

4 AN960JD10

Washer

107715

50

33.0

AN960JD416

Washer



Comment: Qty.: 16.0000 Each(s)/Unit Total : 160.0000 Each(s)

Pick: Packing Kit

Qty Part Number Description Batch

16 AN960JD416

Washer

107321

50

34.0

AN960JD516

Washer



Comment: Qty.: 4.0000 Each(s)/Unit Total : 40.0000 Each(s)

Pick: Packing Kit

Qty Part Number Description Batch

4 AN960JD516

Washer

107534

50

35.0

MS21042L3

Nut



Comment: Qty.: 2.0000 Each(s)/Unit Total : 20.0000 Each(s)

Pick: Packing Kit

Qty Part Number Description Batch

2 MS21042L3

Nut (or -3)

107644

8/5/5

50

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

QA: N/C Closed: _____ Date: _____

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Job Number: 37796

Part Number: D350591312

Job Number:



Seq. #:

Machine Or Operation:

Description :

36.0

MS21042L4

Nut



Comment: Qty.: 8.0000 Each(s)/Unit Total : 80.0000 Each(s)

Pick: Packing Kit

Qty Part Number Description Batch

8 MS21042L4

Nut (or -4)

106051

37.0

MS21042L5

Nut



Comment: Qty.: 2.0000 Each(s)/Unit Total : 20.0000 Each(s)

Pick: Packing Kit

Qty Part Number Description Batch

2 MS21042L5

Nut (or -5)

106785

8/5/5

510

38.0

QC4

INSPECT 100% KITS FOR COMPLETENESS



Comment: INSPECT 100% KITS FOR COMPLETENESS

08/05/06 (210 LH)

39.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Identify and pack for shipping as per PPP D350-591-312

Location: _____

Rev D

08/05/06

(X16)

40.0

QC21

FINAL INSPECTION/W/O RELEASE



Comment: FINAL INSPECTION/W/O RELEASE

08/05/08

Job Completion



X

376

1 x DSI9410-011

B38473

per EEN1164

4

MF 08-05-07

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

DART

DESIGN <i>qp</i>	DRAWN BY <i>B</i>	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED <i>LE</i>	APPROVED <i>H</i>	DRAWING NO. D3272	REV. B SHEET 1 OF 3
DATE 07.05.18		TITLE STEP ASSEMBLY, HI LONG	SCALE NTS
A	04.03.01	NEW ISSUE	
B	07.05.18	D3272-1 WAS D2622-120	

RELEASED07.06.04 *ff*

QTY -041	QTY -042	PART NUMBER	DESCRIPTION
X		D3272-041	STEP ASSEMBLY, HIGH LONG (LH)
	X	D3272-042	STEP ASSEMBLY, HIGH LONG (RH)
1	1	D3065-041	LEG ASSEMBLY
2	2	D3066-1	SPACER
2	2	D3067-1	END PLATE
2	2	D3219-1	SUPPORT
1	1	D3272-1	STEP
16	16	MS20600AD4W4	RIVET

GENERAL NOTES:

- 1) D3272-041 SHOWN. FOR D3272-042, INSTALL D3219-1 SUPPORT OPPOSITE SIDE
- 2) WELD PER DART QSI 004
- 3) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005.4.1
POWDER COAT ASSEMBLY WHITE (4.3.5.1) PER DART QSI 005 4.3
BLACK ANTI-SKID PAINT PER DART QSI 005 4.4
- 4) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED.
- 5) ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED.
- 6) BREAK ALL SHARP EDGES 0.005 TO 0.010 MAX.

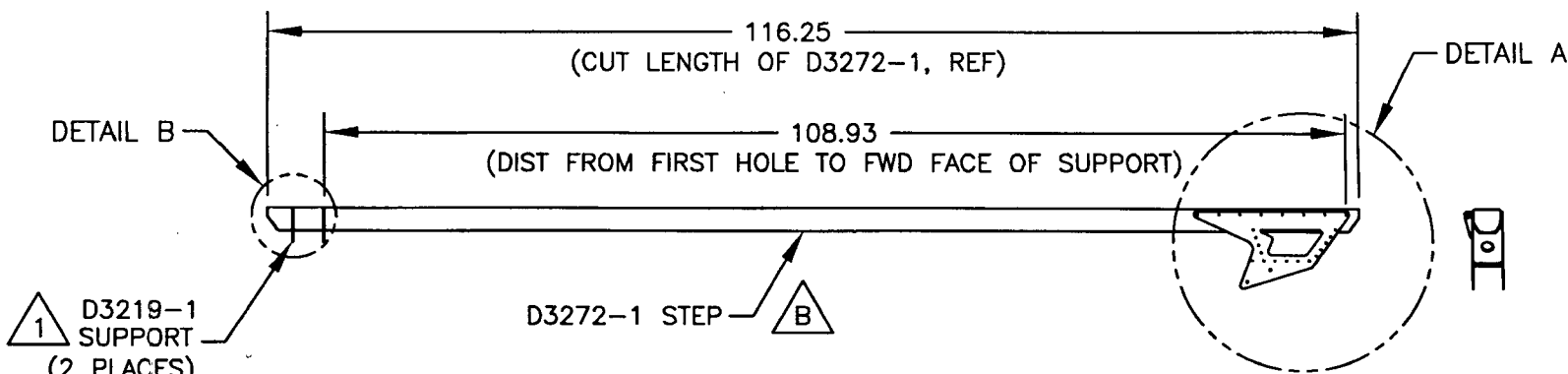
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SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. *37796*

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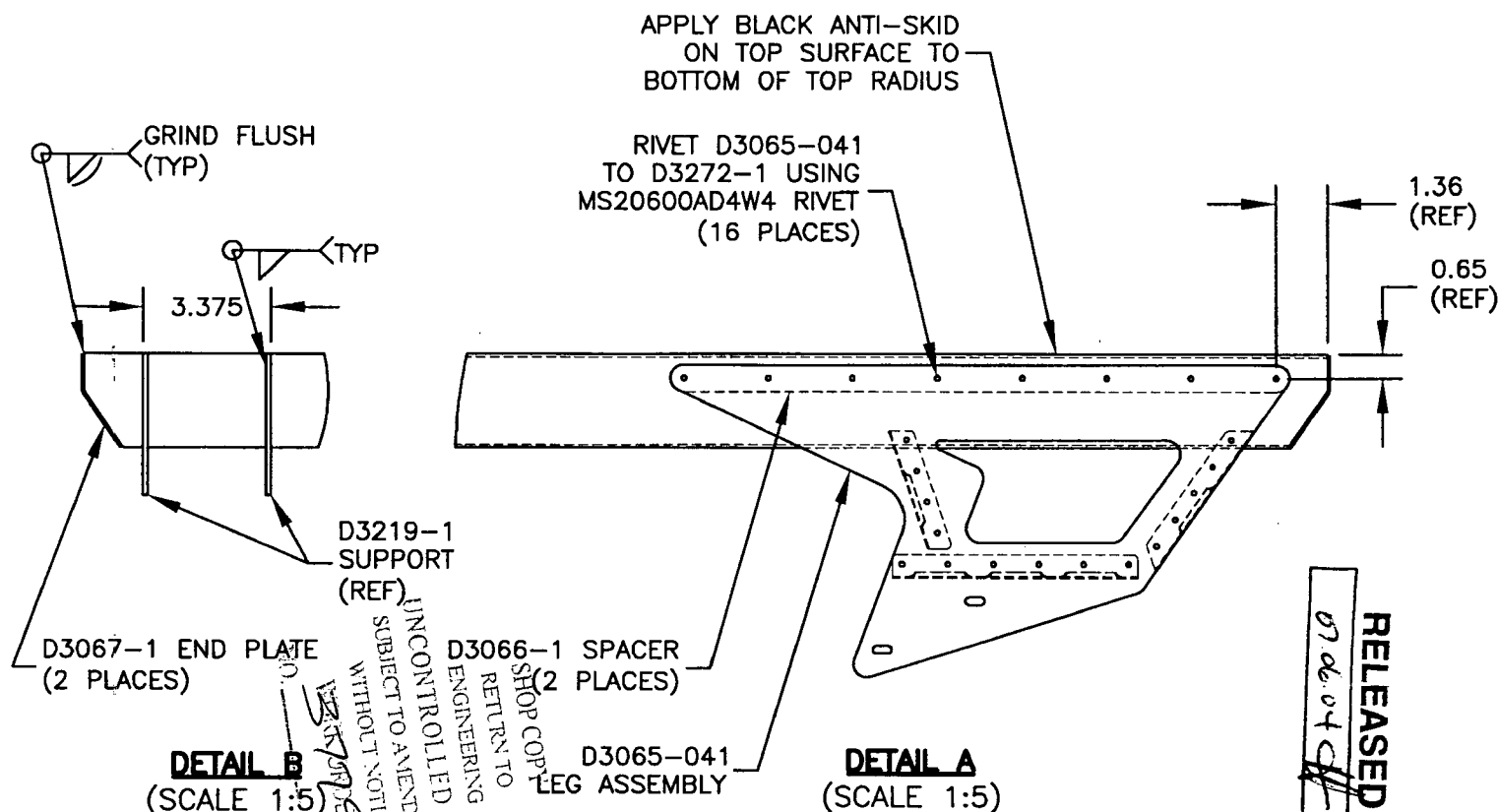
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DART

DESIGN	90	DRAWN BY	90	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	REV. B
CHECKED	CE	APPROVED	CE	DRAWING NO. D3272	SHEET 2 OF 3
DATE	07.05.18	TITLE	STEP ASSEMBLY, HI LONG	SCALE	1:20



D3272-041 STEP ASSEMBLY (LH. SHOWN)
D3272-042 STEP ASSEMBLY (RH, OPPOSITE)



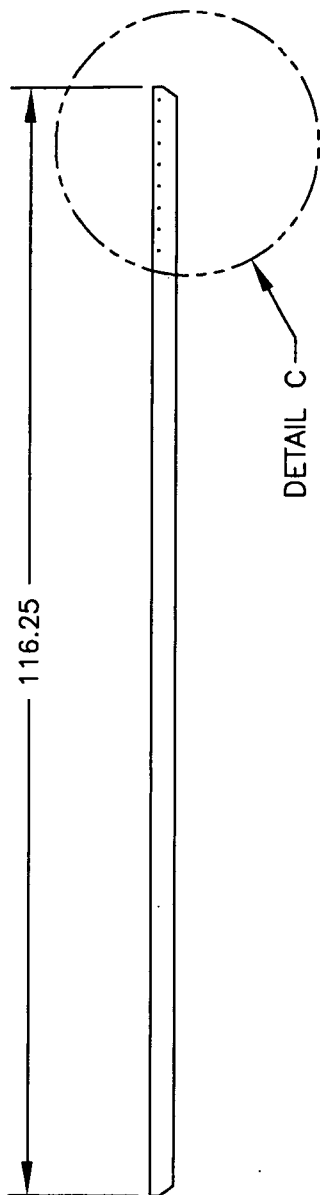
DETAIL B
(SCALE 1:5)



DESIGN <i>GP</i>	DRAWN BY <i>JB</i>	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED <i>LE</i>	APPROVED <i>[Signature]</i>	DRAWING NO. D3272	REV. B SHEET 3 OF 3
DATE 07.05.18		TITLE STEP ASSEMBLY, HI LONG	SCALE 1:20

RELEASED

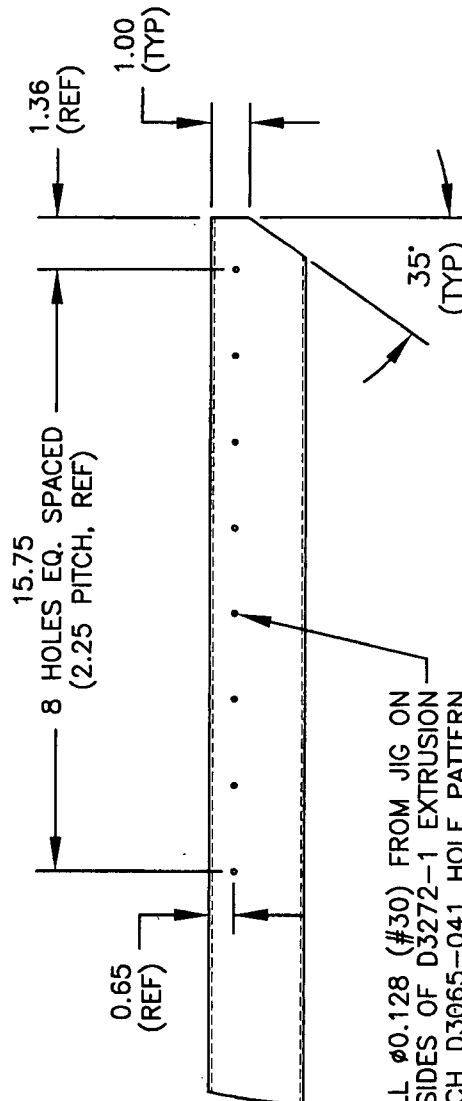
07.06.04 *[Signature]*



DETAIL C

B D3272-1 STEP

(MAKE FROM D2622-120 STEP EXTRUSION)



DETAIL C
(SCALE 1:5)

DRILL $\phi 0.128$ (#30) FROM JIG ON
BOTH SIDES OF D3272-1 EXTRUSION
TO MATCH D3065-041 HOLE PATTERN

SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. **37796**

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